

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims:

Listing of Claims:

1-19. (Canceled)

20. (Previously presented) A repeater unit comprising:

at least one receiver module responsive to an infrared signal; and

a controller unit adapted to determine whether a signal based on the infrared signal corresponds to a remote control signal,

wherein the at least one receiver module comprises a first receiver module, tuned to a first carrier frequency, that receives the infrared signal and is configured to generate a first signal based on the infrared signal, and a second receiver module, tuned to a second carrier frequency, that receives the infrared signal and is configured to generate a second signal based on the infrared input signal,

wherein the controller unit:

determines if the first signal based on the infrared signal is a valid remote control signal by determining if the first signal corresponds to one of the remote control signals, or

determines if the second signal based on the infrared signal is a valid remote control signal by determining if the second signal corresponds to one of the remote control signals; and

generates a signal that corresponds to one of the remote control signals, if the controller unit determines that either the first signal or the second signal is a valid remote control signal, by adding either a fixed carrier frequency, or a multi frequency signal to either the first signal or the second signal,

wherein the controller unit determines if the first signal corresponds to one of the remote control signals by measuring a pulse width of the first signal, and determining if the pulse width of the first signal is greater or less than a predetermined duration that corresponds to a duration of a carrier of one of the remote control signals,